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**VIA ELECTRONIC DELIVERY**

Mr. Brent J. Fields, Secretary  
U.S. Securities and Exchange Commission  
100 F Street, N.E.  
Washington, D.C. 20549

Re: Open-End Fund Liquidity Risk Management Programs (File No. S7-16-15)

Dear Mr. Fields:

Milliman Financial Risk Management, LLC (“Milliman FRM”) appreciates the opportunity to provide comment to the Securities and Exchange Commission (“Commission”) regarding the proposed open-end fund liquidity risk rule. Milliman FRM is a Commission-registered investment adviser that provides financial risk management services to the global retirement savings industry. Milliman FRM provides investment advisory, hedging, and consulting services to institutional and fund clients. Milliman FRM’s approach relies on the simplest, most liquid hedge assets available, and the firm prides itself on complete transparency with all of its clients. Milliman FRM’s risk management strategies have been tested for more than seventeen years and through two market crises (the 2000 dot-com bubble and the 2008 global financial crisis). We believe that liquidity is an important issue for funds to consider and, with clarification, the proposed rule can mitigate future risks for funds and their investors.

1. Classifying the Liquidity of a Fund’s Portfolio Positions under Proposed Rule 22e-4. The proposed rule would require a fund to determine, *using information obtained after reasonable inquiry*, the number of days a position in a portfolio asset is convertible to cash, *at a price that does not materially affect the value of that asset immediately prior to sale*. The Commission has asked for comment regarding whether these terms are sufficiently clear as written. We believe they are not.

The first step of the analysis requires a fund to obtain information after *reasonable inquiry*. There are many pieces of market information that may be available for an asset at any given time, for example: the bid and ask, the spread, and the volume. The reasonableness of such an inquiry may vary, depending on the tools and resources a fund has available to it. For certain positions, such as equity holdings, information may be readily available. Fixed income holdings or derivative information may be more difficult to obtain or calculate. We ask that the Commission clarify or provide examples of types of information that a fund should obtain or attempt to discern.

The second step of the analysis requires the fund to consider if the sale price would *materially affect the value of that asset*. In a moving market, determining at what point a price would materially impact the value of that asset is too vague a standard. While we do not believe that arbitrary thresholds (e.g., sale price must be within 10% of current market price) would be useful, additional guidance as to what constitutes a material effect would be beneficial. Funds will need flexibility to sell assets if they are under stress because of redemptions; vagueness in this rule will lead to very wide price calculations. If a fund is using a model to calculate which prices fall in an acceptable range, the Commission may need to provide guidance about acceptable model assumptions.

2. Relationship of Asset to Another Portfolio Asset. The proposed rule would require a fund, when evaluating the liquidity of a derivative in its portfolio, to consider the liquidity of the underlying instrument of the derivative, including when derivatives are purchased for hedging purposes. The Commission has asked for comment regarding the circumstances where such linking should be required.

The example provided in the proposed rule<sup>1</sup> suggests that when buying a liquid derivative that has an illiquid or less liquid underlying security, the liquidity analysis for the derivative should be negatively impacted. We believe that there are many cases where such a linking would lead to a misrepresented liquidity determination for the derivative. Consider the reverse of the example provided in the rule: a liquid underlying security and a more illiquid future. This is not uncommon in the derivatives market; for example, the CME Group's E-mini Technology Select Sector Futures contract has a relatively low daily volume, it is illiquid. However, many of its underlying securities, such as Apple, Google, and IBM, are in fact highly liquid. This liquidity is easily confirmed by observing the

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<sup>1</sup> Page 97

trading volume of these securities. In the case of this derivative contract, if you considered the contract liquid simply due to the liquidity of its underlying securities, this would lead to an inaccurate classification of the derivative.

Another scenario to consider is where a highly liquid derivative has an illiquid underlying security. This is not uncommon in the fixed income realm. A credit default swap on an index, such as CDX High Yield 5 year, is a liquid, cleared derivative. The bonds that are the ultimate reference security are not. Bonds tend to be buy-and-hold instruments; ascertaining their liquidity is difficult. Linking the derivative to its underlying instrument would lead to the derivative being inaccurately deemed more illiquid than it actually is. Many times bond derivatives are purchased because a fund needs the greater liquidity the derivative provides versus the underlying instrument.

Linking derivatives to their underlying instrument is best left for over-the-counter (OTC) instruments. Exchange-traded derivatives, such as futures, have readily available liquidity measures at all times (volume and open interest). These measures are likely sufficient for a fund to use in its liquidity determinations, considering an underlying security or many underlying securities would create unnecessary complexity. For OTC instruments that are not cleared, linking the derivative to its underlying security may be more applicable. However, we request that the Commission provide guidance as to how the two instruments should be linked in a liquidity analysis. If the underlying security of a liquid derivative is highly illiquid, at what point would that be important enough to shift the “days to cash” classification for the derivative? Should a liquidity risk management program create its own thresholds based on internal models?

#### *Operational Challenges of Linking Assets’ Liquidity*

When an asset is bought in connection with another, assessing the liquidity in a combined way for a liquidity risk management program may present operational challenges, depending on the instruments. In order to clarify the challenges with linking, consider the example of a fund that purchases ETFs on a broad index (such as the S&P 500) and then purchases a futures contract to hedge that exposure. The liquidity of the ETF is usually closely linked to its underlying constituents, but that may not always be the case. The liquidity of the futures contract depends on its underlying reference to some degree, but is mostly centered on the need of other market participants for that kind of derivative. A fund that must link these liquidities has a challenge; it must assess the liquidity of the underlying securities,

the liquidity of the ETF itself, and the liquidity of the derivative. For a fund of any size, this presents significant resource requirements and will be a challenging task to complete, especially as it must be done on an on-going basis.

3. Use of Borrowing and Derivatives for Investment Purposes. The proposed rule references derivatives broadly, and notes that, depending on the type of instrument, there may be impacts to a fund's liquidity. We generally agree. A liquidity risk management program should consider a derivative's purpose, the type of instrument, its margin and collateral requirements, and its settlement periods. However, many derivatives, such as certain exchange-traded futures, are highly liquid and would not negatively impact a fund's liquidity.

Consider the proposed rule's example of a fund "equitizing" its temporary cash position by buying futures in order to obtain equity exposure.<sup>2</sup> This example acknowledges that these would be liquid futures, but notes that this exposes the fund to market risk. If the Commission is suggesting that funds refrain from equitizing temporary cash positions, we can foresee a situation where funds may choose to take on greater equity positions at the expense of any temporary cash cushion. A fund manager may prefer to have exposure to the market. This creates a less ideal situation when a fund must meet redemptions. Securities take longer to redeem versus futures contracts. A hypothetical small-cap fund holding 99% equities and 1% cash may be required to sell its small-cap positions for less-than-ideal prices in order to meet redemption requirements. The same fund holding 95% equities, 4% futures, and 4.5% cash would be able to more easily sell its futures positions and meet its redemption requirements. We believe that the Commission should be aware of these types of situations when considering the use of derivatives in funds.

We appreciate this opportunity to comment on the Proposed Rule, and would be happy to discuss any questions with respect to this letter. Please contact Ken Mungan, Chairman of the Board, at [REDACTED].

Sincerely,  
Milliman Financial Risk Management LLC

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<sup>2</sup> Page 122 of the Proposed Rule